

2008

Self-efficacy, identity, career knowledge, and interests in adolescents

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DOI: <https://doi.org/10.31979/etd.au7j-62dm>
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SELF-EFFICACY, IDENTITY, CAREER KNOWLEDGE, AND
INTERESTS IN ADOLESCENTS

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

By

Dawn Mikolyski

May 2008

UMI Number: 1458131

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ABSTRACT
SELF-EFFICACY, IDENTITY, CAREER KNOWLEDGE, AND
INTERESTS IN ADOLESCENTS

by Dawn Mikolyski

The purpose of the present study is to examine how adolescents' demographic information may interact with self-efficacy, identity, career knowledge, and interests using the conceptual frameworks of Bandura's theory of self-efficacy and Erikson's theory of identity development. With further understanding of what variables may contribute to identity and a career goal, we may be able to better support young people to become productive and satisfied adults in the work force. Subjects included 55 girls and 55 boys attending public middle school. Hypotheses were tested to answer relationships between demographic information, self-efficacy, identity, career knowledge, preferences and priorities. Results indicated that girls perceived a higher level of career task self-efficacy than boys. Furthermore, girls preferred a greater variety of career tasks than boys. Results also indicated that identity status domains develop at different rates. Results were interpreted in terms of adolescents' identity and career development as well as gender differences.

ACKNOWLEDGEMENTS

I would like to offer my sincere thanks to Dr. Mildred Alvarez, Dr. Robert Cooper, and Dr. Catherine Cooper for their patience, invaluable time, aid, and insight that they each contributed to this project.

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Introduction

A career is typically the way one attains an income to pay for the necessities of life. Furthermore, a career is often used as a way to identify and describe who a person is and how many people find fulfillment and purpose in life. We quickly describe people as doctors, teachers, janitors, artists, or homemakers yet the process by which career goals and ultimately a career identity are developed can be a life-long process with many changes in direction along the way.

The process of career development is commonly monitored by posing questions to children such as “what do you want to be when you grow up?” Adolescents are asked “what are your plans for the future?” A common topic of conversation for adults begins with, “what do you do for a living?” The responses may be dependent on one’s level of experience and knowledge, one’s interests and preferences, priorities, and most of all their confidence in their capabilities. This study investigated the relationships between demographic information, perceived self-efficacy, identity exploration and commitment, career related tasks, perceived career knowledge, career preferences, and general priorities in the cognitive developmental process of forming career choices in early adolescence.

Career development has been investigated in relation to Albert Bandura’s (1986) Social Cognitive Theory and Erik Erikson’s (1968) theory of Identity Development. At the core of Social Cognitive Theory is the function of human agency and how cognitive, self-reflective, and self-regulatory processes interact with life experiences (Bandura, 1989a, 1989b, 1994). The term self-efficacy is defined by Bandura (1994) as “people’s

beliefs about their capabilities to produce effects” (p. 72). The complexity of Social Cognitive Theory in the context of career choices and development is broken down into more specific theories based largely on how life experiences interact with perceived self-efficacy and outcome expectations to expand or limit perceived choices as well as the level of motivation one may have to take advantage of opportunities (Bandura, 1994). Erikson’s theory of identity described the development of a complex pattern of dimensions across settings from the private internal sense of who one is and what one shares with the outside world. Social Cognitive Theory and Erikson’s Identity Theory are discussed below.

Social Cognitive Theory

Bandura (1994) defined and organized the concept and development of perceived self-efficacy through cognitive, motivational, affective, and selection processes. The resulting cognitive process affected by self-efficacy beliefs “shape the types of anticipatory scenarios they construct and rehearse” which in turn helps facilitate the construction and attainment of goals (pg. 72). In other words, successful individuals are able to use organized rule based thoughts to judge, predict and adjust their actions based on knowledge and experiences in order to form and attain goals. Those who struggle with their perceived self-efficacy spend time and energy battling self-doubt which leads to erratic thinking, lowered goals, and, ultimately, poor performance behaviorally validating their negative belief system.

The positive or negative belief system that is developed plays an important role in motivation and self-regulation. Specifically, the cognitive processes that may motivate

an individual have been organized into causal attributions, outcome expectations, and cognized goals with corresponding respective theories of attribution theory, expectancy-value theory, and goal theory (Bandura 1986, 1991, and 1994). Causal attributions of whether one believes their failures are a result of insufficient effort or low ability (as with those who have high or low beliefs of efficacy) affects individuals' motivation based on the value of performing their best and the knowledge that one is capable of improving versus giving up and having feelings of defeat. The causal attributions contribute to the expectations of desired or undesired outcomes. The cognitive process of integrating knowledge and experiences to create a model of expectations and likely outcomes is mediated by one's belief about his or her abilities which in turn motivates people to pursue a goal or not. Finally, the aspect of motivation based on goals has been organized into three areas: self-satisfying or dissatisfying reactions to one's performance, perceived self-efficacy for goal attainment, and readjustment of personal goals based on progress. In other words, self-efficacy influences what goals are identified, how much effort and time one will invest in reaching the goal, and whether one sustains motivation or gives up in the face of difficulties.

As with the cognitive and motivational processes, the affective process defines yet another aspect of an individual that is determined by self-efficacy (Bandura, 1994). Individuals' perception of their ability to control a situation as well as their own thought processes about the situation influences levels of anxiety and potential depression. In other words, one's belief in the ability to control one's thoughts plays a part in how one manages levels of anxiety when encountering stressors. The confidence to control one's

emotions, and situations that may trigger emotions such as anxiety, also influence long term stress related issues such as depression and health functioning. Specifically, it has been found that being exposed to stressors with the perceived inability to control them has impaired the immune system. Furthermore, those who have not fulfilled their aspirations or have a low sense of social efficacy are at high risk for depression.

As stated previously, thought patterns, motivational processes, and affective responses to situations influence the choices that people make. Thus self-efficacy influences the activities, social interactions, and possible risks one is willing to take in the course of one's life. As individuals navigate through their environment, the choice an individual makes is largely based on their experiences and their belief system about what they are capable of. In terms of career choices, someone will choose a career path, educationally prepare for it, and persist with the career when they believe they are capable of being successful in that chosen career, and they will not choose a certain career if they believe they are not capable (Bandura, et. al 2001, Bandura, 1994). For example, while men and women are equally capable of doing jobs that require cognitive abilities, men still dominate many occupations because women have a weaker sense of efficacy for male-dominated professions even when both genders test equally on verbal and quantitative abilities necessary for such professions (Betz & Hackett, 1981).

Through the cognitive, motivational, affective, and selective processes individuals navigate through life with varied perceptions of their experiences. For example, people with high assurance in their abilities experience new tasks as challenges to be mastered versus threatening situations that should be avoided. Furthermore, those individuals with

high assurance or self-confidence sustain their efforts even when facing failure and when they do experience failure, they recover with the belief that if they acquire more knowledge and skills they would be successful. In general, those individuals who have a high sense of efficacy in their abilities believe that they have control over the challenges and threats they face which results in a reduction of stress and paves the way for personal accomplishments.

On the other hand, individuals who doubt their abilities avoid challenges which contribute to a pattern of low aspirations and a lack of commitment to goals. Those with low levels of confidence tend to dwell on their deficiencies, obstacles, and possible adverse outcomes when they are faced with a challenge. Furthermore, when a task becomes difficult, they give up quickly, are slow to recover, and view their failure as their inability to accomplish the task. The pattern of avoidance of challenges and resignation in the face of difficulties reinforces the belief pattern of low confidence in their abilities which may lead to stress and depression.

The patterns of cognition, motivation, affect, and selection of processes that describe individuals with high and low levels of perceived self-efficacy change over time, they are not fixed. Bandura (1994) described four main influences on the patterns of perceived self-efficacy. The first influence is to establish a strong sense of mastery through experiences. After a strong foundation of belief of efficacy is established there must be obstacles to overcome in order to teach sustained effort and the ability to recover from a stumbling block. The second way of influencing strong beliefs of self-efficacy is through social models. By relating to others' experiences and identifying with the

model's success or failure, an individual's belief in his or her abilities to have similar experiences and outcomes is established. Social models provide an example of a process and outcome but also provide an example of skills and strategies. The third influential factor in the development of a strong or weak self-belief of efficacy is social persuasion. Specifically, others' verbal praise or ridicule influences individuals' likelihood of attempting and sustaining effort during challenging activities. It should be noted that positive social persuasion must be realistic or it quickly becomes negated by a lack of confirming results; however, negative social persuasion often results in avoidance of an activity all together. The fourth way of influencing self-beliefs is through individuals' perceived emotional and physical reactions to situations. By reducing stress reactions, negative emotional reactions, and misinterpretations of physical states, those with high sense of efficacy view their state of arousal as a source of energy that can support performance versus a debilitating drain on their efforts. In the end, the patterns of thought that translate into action may behaviorally reinforce the negative or positive thought processes that pave the way for further action.

Bandura's work on Social Cognitive Theory has led to many findings on the delicate balance between being motivated to overcome challenges to build higher levels of self-efficacy and meet goals versus being overwhelmed by challenges that may lead to low levels of self-efficacy and ultimately stagnation (Bandura, 1994, Bandura et. al. 2001, Bandura & Locke, 2003). Similarly, Erikson (1968) originally focused on the interaction between the individual and the society/context in which he or she live, the process of crises (i.e., exploration) that one encounters, and the lessons learned that

contribute to the formation of a unique identity. In Erikson's theory of Identity Development the focus on the need for various levels of crisis in order to progress and develop an identity may be comparable to the necessary process of conquering challenges in Bandura's Social Cognitive Theory. While both theories have led to an abundance of insight in the area of self-evaluation and identity, the theories have remained largely separate in the field of career development.

Identity Theory

The concept of identity is abstract and malleable in nature. How one's identity develops over time and what makes one person distinctly different from another person is complex to say the least; therefore, it makes sense that the psychological study of identity is monumental and evolving. For the purpose of this study, the subject of identity is based on Erikson's (1950) foundation of identity development and Marcia's (1966) empirical assessment of identity development theory. Erikson's theory of identity described a complex pattern of dimensions on a spectrum ranging from identity synthesis to identity confusion. Identity synthesis describes consistency between what one shares with the outside world and what one shows oneself across the various aspects of identity. Identity confusion describes partial or disorderly pattern across dimensions and between the identity shared with self and others. Furthermore, Erikson described the ideal location on the spectrum of identity development as showing a continuity of character with the awareness of continued growth or evolution of identity, in Erikson's (1968) words, "a present with an anticipated future" (p. 30). Each person's identity development may range between synthesis and confusion or a feeling of purpose or indifference, while

to others there can be a sense of predictability or unpredictability depending on where they are on the spectrum of development. In other words, the more synthesized the identity, the more predictable the person should be.

Erikson's body of work has been influential during the 58 years following his first book, *Childhood and Society*. His writings are eloquent, poetic, and philosophically based on his clinical experiences which have provided useful insight into how to think about identity; however, Erikson did not provide the detail to directly translate his ideas into science (Marcia, 2001; Schwartz, 2001). It was left to the next generation and James E. Marcia (1984), who was inspired by Erikson's work and created constructs that could be measured and used in psychological studies, to further define the process of identity development.

Marcia (1966) used Erikson's theory of Identity Development as the foundation for the work on the levels at which one has explored or committed to domains of identity such as a career choice. Exploration has been defined as a process of sorting through information about one's self and the environment, while commitment is defined as choosing goals, values, or beliefs. Given varied levels of exploration and commitment, four general identity statuses were developed: foreclosure describes high commitment with little exploration, moratorium is characterized by low commitment and high exploration, diffusion describes low levels of commitment and exploration, and finally achievement represents high level of exploration followed by a high level of commitment. Marcia's identity statuses were a departure from Erikson's original thoughts about identity in the attempt to organize the basic premise in a way that could be

used in research (Marcia, 2001). Marcia (2001) described the difference between his work and Erikson's as, "different aspects of a construct emerge[ing] when one's goal is to define and measure it than when one aims to understand it." (p. 59) Given the complexity of the variables involved with identity, particularly the internal components such as unconscious wishes and childhood experiences, Marcia made the choice to get the "inside, outside" and to establish "observable, external indicators of a presumed internal processes." (p. 60). Therefore, Marcia took on the task of breaking down the complexity of Erikson's identity theory and to provide a picture of what identity may look like at the time that it was studied in each individual. Where many studies focused on specific aspects of Erikson's original theory, the body of work that followed Marcia's elaborations built the theory back up and added further understanding to the many components that identity theory contains as well as connecting identity to other domains of research (Marcia, 2001).

The four identity statuses have been associated with many cognitive, emotional, and social differences (Pastrorino, Dunham, Kidwell, Bacho, and Lamborn, 1997; Schwartz, 2001; Marcia, 2001; van Hoof, 2001; Levine, 2001). Specifically, identity diffusion has been associated with general apathy, academic and drug problems, poor interpersonal skills, and those more affected by one's environment. Those who are in the state of identity diffusion have a weaker social support network, are at risk for depression, and often do not take advantage of opportunities that could be helpful to them. In other words, the diffused individual is lacking the foundation of inner strength and environmental support to explore and make choices.

The identity status of foreclosure has been associated with low conflict and idealized relationships with their parents, closed-mindedness, smug self-satisfaction, authoritarianism, and rigidity (Pastrorino, Dunham, Kidwell, Bacho, and Lamborn, 1997; Skorikov and Vonderacek, 1998, Schwartz, 2001). In other words, foreclosed individuals tend to be much more attached to their secure life and those who have contributed to their security; they resist change and are attached to known norms, rules and what is familiar to them. At the core of the foreclosed individual is a person who has adopted someone else's beliefs, standards, and at times choices without critically exploring them first.

Identity moratorium has been associated with open-mindedness, and critical thinking (Pastrorino, et. al. 1997; Skorikov and Vonderacek, 1998, Schwartz, 2001). Interestingly, it has been found that because of the stress associated with high level of exploration and low commitment of the moratorium status, individuals tend to spend less time in this state. Identity achievement is associated with effective decision making, deep interpersonal relationships, and balanced thinking.

While identity as a whole can be described by the four statuses, Marcia and later researchers investigated the various domains of identity. A domain of identity, such as a career identity versus a religious or social identity, describes the different dimensions of one's life that may contribute to an overall sense of identity or serve as separate units of identity for that domain (Skorikov and Vonderacek, 1998). The various domains of identity have been found to develop at somewhat independent rates, and the career identity domain has been found to be at the forefront of maturation of identity domains (Skorikov and Vonderacek, 1998). The finding that identity domains mature at different

rates may be a result of varying priorities during different points in development.

Developing one's identity may require a focused process by which one domain, such as a career, may trump other domains until achievement is reached for that period of time. Furthermore, it may be that one goes through a cycle of the various domains of identity, achieving a sense of identity, then returning to exploration in order to achieve a new identity, to provide more depth to the present identity, or simply to reaffirm that the present identity still fits.

In addition to personal priorities possibly affecting the development of identity domains, external factors such as social expectations may also be an influence. Pastrorino and colleagues (1997) review of identity domain development describes how over the decades of research on identity, the understanding about domain specific gender differences has changed. For example, Grotevant and Thornbecke (as cited in Pastronino, et al. 1997) describe the relationship between men's occupational identity achievement and the desire for material gains and being competitive about work itself, while women's occupational identity achievement has been related to a desire for approval and acceptance from others. In general, men's identity development has been related to ideological issues and women's identity development had been linked more strongly to interpersonal issues.

Social Cognitive Theory and Erikson's Theory of Identity Development were originally related to universal ideas of functioning and self-evaluation through the context of life experiences and the culture in which one lives, interactions with others, and thoughts about the self (Schwartz, 2001, Bandura, 2003). Erikson described a continuum

of identity that ranges from the identity-synthesized individual whose actions and choices are consistent and somewhat predictable when posed with life choices to aggravated identity confusion which describes a feeling of lack of purpose in life (Schwartz, 2001). Bandura also describes a continuum in self-efficacy ranging from those who believe they can accomplish goals to those who avoid and fear the goals (Bandura, 1994). Interestingly, the description of those with high or low self-efficacy closely resembles those with the identity status of achievement, moratorium, foreclosure and diffusion. Given the usefulness of the core ideas of both theories, they were each in their own right adapted to specific topics such as career development. Lent and Brown (1996) used Social Cognitive Theory to describe individuals' perceptions of their abilities in relation to careers, which they labeled Social Cognitive Career Theory. Lent and Brown focused specifically on the levels of perceived self-efficacy in relation to accomplishing career-related goals and tasks, the outcome expectations related to the level of perceived self-efficacy, and how the combination of the cognitive processes and life experiences translated into career choices.

Previous research in career development has addressed cognitive and social aspects of the process in adults. However, individual interests and preferences in conjunction with identity and Social Cognitive theories in the process of developing a career choice warrant further investigation, specifically in relation to younger adolescents (Tracey, 2001). The internal reasoning related to individual factors, such as knowledge about specific interests and preferences and one's confidence in executing skills related to those interests may be the driving influence behind the maturation of occupational

identity. The comparison of what one is interested in and prefers may coincide or conflict with what one is good at, thus prolonging the commitment to a specific career path.

In addition to individual priorities, career related preferences, self-efficacy, and how much an individual has explored or committed to domains of identity, there are also external variables such as gender, parent's education, and parent's career. Specifically, it has been found that girls tend to have higher levels of self-efficacy related to social services and boys have higher levels of self-efficacy related to science and technology (Bandura, Barbaranelli, Caprara, Pastorelli, 2001). Similar to the perceived cultural limitations of career options based on gender, it has also been found that there are perceived limitations based on family experience and parents as role models (Bandura, et. al. 2001, Kerka, 1998). Due to the complexity of Social Cognitive Theory and identity theories in terms of the development of a career choice, it is reasonable to expect that the general process of identity development and perceived self-efficacy would begin in early childhood and take shape in relation to career development in late childhood and early adolescence. How the described variables affect the prioritizing of domains of identity is in need of investigation. As mentioned previously, Skorikov and Vonderacek (1998) found that the domain of vocational identity seemed to lead the way of developmental progress across the identity domains. This may have occurred because a career is often a pressing priority for adults. For those in early adolescence, it may be that the domains with the greatest priority would be more developed in status.

The following hypotheses will be tested in this study:

Hypothesis 1: Those students who report one or more caregiver having “some college” or more education will be more likely to be in achievement and moratorium identity statuses in the occupation identity domain than students who report all of their caregivers having not more than a “high school” education.

Hypothesis 2: Girls will report high levels of confidence and preference for primarily service related career tasks (e.g., clerical, social services, and customer service), and boys will report high levels of confidence and preference for a wider variety of career related tasks (e.g., science, mechanics, engineering, politics, and social services).

Hypothesis 3: Identity achievement will be in domains of occupation, philosophical life, friendship, and recreation in relation to how they were ranked in order of importance as a priority. For example, if meeting occupation/career goal is ranked as the number one priority then identity achievement will occur in the occupation domain.

Hypothesis 4: Those who show identity achievement or foreclosure in the domain of occupation will have high levels of confidence in reaching their career goal.

Hypothesis 5: High levels of confidence will relate to high levels of preference for career related tasks.

Hypothesis 6: Those who show identity achievement or foreclosure in the occupation identity domain will have high levels of perceived career knowledge.

Method

Participants

One hundred and ten middle school students participated in the study. Middle school students were asked to volunteer from schools in the Santa Cruz area. Debriefing about the study and a class discussion on career development took place after collecting data.

Selection Procedure

Students from Mission Hill Middle School in Santa Cruz, California were invited to participate in a study about career interests and identity during a class session. San Jose State University Human Subjects Institutional Review Board approved this study (see Appendix A) and a letter from the principal granting permission to recruit students from the school to participate in the research study was obtained before data collection began. The experimenter contacted teachers for permission to recruit from their classrooms to participate in this study. The experimenter explained the general purpose of the study and students were invited to participate. Informed consent forms were sent home (see “Procedure section” and Appendix B). Those students who returned consent forms signed by their parents or guardians were able to participate in the study.

Rationale for Selection

Middle school students are at the developmental age that is appropriate to address the questions and hypotheses in this study. Participants of all ethnic backgrounds, regardless of gender, were asked to participate in the study.

Materials

Students were asked to complete a survey that included short open ended items asking about demographic information and career choices in addition to four questionnaire measures which total 110 items (see Appendix C for the full survey). The present study used a survey packet consisting of five components. The entire survey took approximately 30 minutes to complete.

1. Demographic and Career Choices: Multiple choice options for gender, and open-ended items included ethnicity, age, and first, second and third career goal, as well as a brief statement about why they have chosen their career goals. A six point Likert scale asking how confident they are that they will reach their career goals was also included. Students were also asked to mark their primary and secondary caregivers' highest level of education achieved from the options of high school, some college, bachelors' degree, or masters or doctorate. Open ended question asked students to state what their caregivers' current careers are.

2. Career Information: Eight, six point Likert response items about the general knowledge of the first career goal was provided. Four of the items focus on the knowledge of the content of the career goal and four items focus on the knowledge of the procedure of reaching the career goal. Participants were asked to indicate the degree of agreement with each response.

3. Information about Priorities: Twelve questions that asked participants to rank in order of importance recreation, life-style, friends, career goal, money, prestige, family,

schoolwork, fame, having fun, values, and planning for the future were included in the survey.

4. Task Self-efficacy and Preferences: A self-efficacy and preference for career tasks scale was developed based on the general format of the Kuder's Task Self-efficacy Scale (KTSES) (Lucas, Wanberg, & Zytowski, 1997). The KTSES was developed to test young adults. Items were created for the present study that target adolescents. Specifically, a 39 item, five point Likert scale that measures adolescent's level of confidence in relation to tasks in a variety of occupational areas (e.g. fine arts, science, social services, engineering, skilled labor, and customer service) was created. In addition to asking how confident the students feel about career related tasks there are five point Likert scale items that ask how much the individual thinks they would like doing each of the career related tasks.

5. Identity scale EOMEIS-2: The students took the Objective Measure of Identity Status second version (EOMEIS-2) which is a 64 item six point Likert scale that measures level of commitment and exploration in the domains of occupation, religion, politics, philosophical life-style, friendship, dating, sex roles, and recreation (Bennion and Adams, 1986). The EOMEIS-2 took ten years to develop and there have been numerous studies testing the reliability and validity of the items with several updates and modifications which resulted in the EOMEIS-2 (Adams, 1986). Due to the age of the students and length of the combined questions, the EOMEIS-2 was modified to be shorter than the original version by including only four of the eight domains. The students took the occupation, friendship, philosophical life-style and recreation sections of the

EOMEIS-2, which totals 32 items. The four specific domains of identity were chosen because of the age appropriateness of the topics, and because the domains are a general representation of a balanced life style, for example, to have a balance between an occupation, social relationships and recreational activities.

Procedure

Participants were informed of the risks associated with the study, as well as their rights. Informed consents were sent home one week prior to the day that the survey was handed out to students who turned in consents signed by their parent(s) or legal guardian(s). The participants were instructed not to write their names on the survey package and were assured of the confidentiality of information they provide. Participants were asked to follow the written instructions associated with each survey instrument and to complete the survey to the best of their knowledge. Participants were told that if for any reason they would like to stop participation they may do so. All participants who started the survey chose to complete it, aside from a select few who ran out of time. They were also instructed to raise their hand if they had any questions at any point. Upon completion of the survey, participants were debriefed concerning the purpose of the study and the contact information of the experimenter was provided for future inquiries.

Students were given a brief summary of the goal of the project, their rights as participants, the directions for each section of the survey, then completed the survey which included 18 demographic items, eight items about career knowledge, 12 items about priorities, 39 items about task self-efficacy, 39 items about task preference, and 32 items about identity. The survey and directions took approximately 30 minutes to

complete. After the survey was completed they were thanked for participation and a short question and answer discussion took place which lasted approximately ten minutes. At a later date, after the surveys had been scored and analyzed, the students received a summary of the results and a discussion about career and academic information which took approximately 25 to 40 minutes.

Scoring and Data Preparation

Gender was dummy coded into two variables, “1” for boys and “2” for girls. Ethnicity was dummy coded in groups, “1” for Latino/Latina, “2” European American, “3” for African American, “4” for Asian, “5” for Middle Eastern, and “6” for Other. Career choice/goals were scored and coded to fit into the categories of “1” for arts, “2” for science, “3” for entertainment, “4” for sports, “5” public service, “6” administration, “7” for business, “8” for labor, “9” for technology, “10” for education and “11” for other. The open ended question of why they chose each career choice/goal was coded to fit into the 12 categories specified in the Priorities Scale with the additional category of “other.” Specifically, 1: money, 2: prestige, 3: recreation, 4: friends, 5: life-style, 6: career goal, 7: fun, 8: school, 9: fame, 10: family, 11: values, 12: preparing for the future, and 13: other. Career choice/goals were scored to create groups based on the amount of schooling the students think they need to reach each career choice/goal in the categories of “1” for high school, “2” for some college, “3” for bachelor’s degree, and “4” for masters or doctorate. Career choice/goal confidence was coded based on the Likert scale numbers ranging from “1” for “not confident at all” to “5” for “very confident”.

Caregiver information was dummy coded as “1” for mother, “2” for father, and “3” for other. Caregiver occupation was coded into the categories of “1” for arts, “2” for science, “3” for entertainment, “4” for sports, “5” public service, “6” administration, “7” for business, “8” for labor, “9” for technology, “10” for education and “11” for other. Caregiver education was coded in the categories of “1” for high school, “2” for some college, “3” for bachelor’s degree, and “4” for masters or doctorate.

Career information/knowledge was scored for level of content and procedural knowledge based on how much the participants agree or disagree with the eight statements. Four statements describe knowledge about the content of the career and four describe knowledge about the procedures related to reaching the career goal. The six point Likert scale includes options ranging from 1: “strongly disagree”, 2: “moderately disagree”, 3: “disagree”, 4: “agree”, 5: “moderately agree” and 6: “strongly agree”. General priorities such as friends, family, career goals and so on were coded for the specific ranking they received, specifically number one as most important to number twelve as least important.

The career tasks were scored for level of confidence (self-efficacy) and preference in the 28 specified career areas based on a five point Likert scale. The options range from 1: “not confident at all”, 2: “not very confident”, 3: “neither confident nor unconfident”, 4: “somewhat confident”, and 5: “very confident”. The options for preferences range from 1: “strongly dislike”, 2: “dislike somewhat”, 3: “neither like nor dislike”, 4: “like somewhat”, and 5: “like very much.”

The EOMEIS-2 was scored for levels of exploration and commitment which define the identity statuses of achievement, moratorium, foreclosure and diffusion for each identity domain of occupation, friendship, philosophical life-style and recreation as well as an overall identity status using the scoring based on a six point Likert scale of how much participants agree or disagree with the statements relating to each identity domain. Specifically, options ranged from 1: “strongly disagree”, 2: “moderately disagree”, 3: “disagree”, 4: “agree”, 5: “moderately agree” to 6: “strongly agree”. EOMEIS-2 variables were summed into raw subscale scores for each domain and identity status. Identity statuses were also summed for the ideological and interpersonal subscales to create the raw subscale scores. The subscales were then computed using the “if” statements to create the rules that classify pure, transition and low profile moratorium identity statuses. The lowest possible overall score for the EOMEIS-2 for the four domains is 32 and the highest is 192. The raw identity domain subscale scores range from a possible low of 8 to a possible high of 48. The raw subscale scores for diffusion, foreclosure, moratorium, or identity achievement can be used in correlational analyses (Bennion and Adams, 1986).

Results

The sample included 55 girls and 55 boys. The ages of the students included five students at 11 years, 43 students at 12 years, 52 students at 13 years, and 9 students at 14 years old. The mean age of the participants was 12.6 years old. Ethnic diversity included: 17 Latino/Latina, 54 European American, 3 African American, 5 Asian, 2 Middle Eastern, and 25 who had mixed ethnicity. Refer to Figure 1 for percentages of

ethnic groups. Some participants ran out of time and were not able to complete the survey resulting in some variables with a sample size less than 110.

The middle school in Santa Cruz, California, that participated in this study has higher reported standard academic scores than the California state averages (California Department of Education, 2008). Specifically, the Santa Cruz middle school scores in language arts, math, life science and history/social sciences scores were 14 to 26% higher than the state averages. The Santa Cruz middle school also had less ethnic diversity, less English language learners and 20% less students who qualified for free or reduced lunch than the California state averages. Overall, when interpreting the results of this study it is important to take into consideration that the sample was taken from a school that has higher academic performance, and lower rates of ethnic and economic diversity in the student population compared to California state averages.

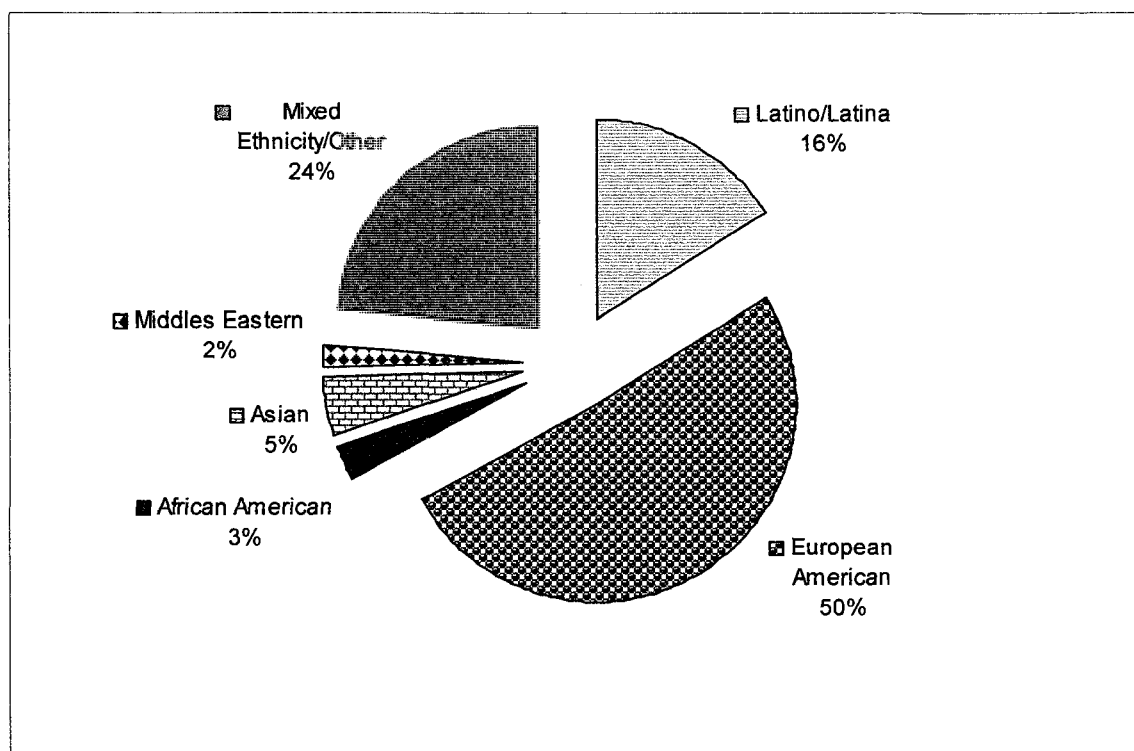


Figure 1. Percentage of students in each ethnic category.

Students' report of level of career knowledge showed that most students thought they had some knowledge/information about their chosen career as seen in Table 1.

Table 1: Descriptive Statistics for Career Knowledge

	<u>N</u>	<u>Mean</u>	<u>SD</u>
career content daily work	109	4.5000	0.9900
career content hours per week	109	4.1651	1.1588
career content job duties	108	4.7685	0.9916
career content money per year	109	3.9633	1.3047
career procedure training/schooling	109	4.4771	1.2881
career procedure cost to reach goal	109	3.8532	1.3866
career procedure get the money	109	4.1009	1.4904
career procedure years of school	108	4.3796	1.2130

Note: items based on a 6 point Likert Scale.

In terms of general priorities (e.g., doing well in school, friends, career goal) students ranked various domains of their life in order of importance where the smaller the number the higher the priority showed. The mean ranking from most important to least important is as follows: family, friends, school, career goal, money, having fun, preparing for the future, personal values, respect, maintaining their life-style, recreation, and lastly being famous. The mean and standard deviation scores for the areas of friends and school were very close which reflects the idea that young adolescent students' attempt to balance their social life and their school responsibilities. Refer to Table 2 for N, mean and standard deviation information on priorities.

Table 2: Descriptive Statistics for Priorities

<u>Priority</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>
Family	108	3.3519	3.4215
Friends	108	4.4537	2.9335
School	107	4.5047	2.8363
Career goal	107	5.3084	3.0789
Money	107	5.7664	3.2551
Having Fun	107	6.4019	3.1138
Preparing for the future	107	6.9533	3.2137
Personal values	107	7.1589	3.2072
Respect	107	7.3925	3.1134
Life-style	106	7.6415	3.1112
Recreation	107	7.7850	3.0593
Fame	108	8.6204	3.7083

Table 3 shows the frequencies of boys and girls career choices. While boys and girls were interested in similar categories of careers, many more boys chose sports and technology related careers than girls. On the other hand, more girls were interested in science related career goals. Furthermore, girls were interested in career goals in every category, but technology while there were no boys who chose a career goal related to public service. The results of a chi-square analysis to test the differences between boys' and girls' career choices was significant $\chi^2(9, N=109) = 28.17, p = .00$.

Table 3: Frequency of Career Choice by Gender

<u>Career</u>	<u>Boys</u>	<u>Girls</u>	<u>Total</u>
Arts	4	8	12
Science	9	14	23
Entertainment	7	9	16
Sports	12	4	16
public service	0	5	5
Administration	2	6	8
Business	2	1	2
Labor	6	1	7
Technology	9	0	9
Education	3	7	10
total	54	55	109

The first hypothesis, that those students who reported their caregivers having “some college” or more education would be more likely to be in the achieved and moratorium identity statuses in the occupation identity domain than students who reported their caregivers having a “high school” education, was not supported because there was not enough variance between students’ report of caregivers’ education to conduct an analysis of variance. Specifically, it was reported that 67% of caregiver one and 55% of caregiver two had a college undergraduate or graduate degree and an additional 17.5% of caregiver one and 26.8% of caregiver two had some college experience. In terms of the hypothesis, there were no significant correlations between

parent education and the identity statuses in the occupation identity domain; however, 75% of the students reported wanting a college degree themselves and an additional 20.4% reported wanting to have some college experience. It appears that the students reported their parents having the college degree that they themselves want in the future with a small percentage of students who want to exceed the level of education that they think their parents have.

The second hypothesis, that girls will report high levels of confidence and preference for primarily service related career tasks (e.g., clerical, social services, and customer service) and boys will report high levels of confidence and preference for a wider variety of career related tasks (e.g., science, mechanics, engineering, politics, and social services), was not supported based on the results of correlations, cross tabulations, and Pearson Chi-square analyses. It was found that girls' level of confidence was positively correlated to multiple career task choices compared to boys as seen in Table 4. Boys' level of confidence was positively correlated with career tasks related to mechanics ($r = .217, p < .05$), factory work ($r = .260, p < .01$), and construction ($r = .195, p < .05$).

Table 4: Correlations of Career Task Self-Efficacy, Career Preferences and Gender

Career Task	Self-Efficacy		Preferences	
	Girls	Boys	Girls	Boys
	r	r	r	r
art			.238**	
mechanics		.217*		.328**
advertising	.302**			
music				
customer service			.200*	
factory work		.260**		
industrial plant				
construction		.195*		.322**
science	.210*			
genetics				
farming	.200**			
cattle	.227*			
forestry				
administrative assistant	.209*		.232*	
law				
computers				.190*
writing	.268**		.225*	
entertainment writer	.265**			
politics	.244*		.216*	
nursing	.374**		.376**	
doctor				
cleaning and maintenance				
psychology	.359**		.363**	
teaching	.365**		.472**	
university professor	.336**		.318**	
event coordinator	.531**		.661**	
chef	.362**		.363**	
business owner				
sales	.208*			
athletics				.357**
sports rehab				.268**
performing				
entertainment	.261**		.266**	
religion				
costume design	.256**		.514**	
home design	.256**		.404**	
landscaping				
veterinarian				
financial				

* $p < .05$, ** $p < .01$.

Girls' career related preferences included a variety of tasks (as seen in Table 4) while boys' career related preferences include mechanics ($r = .328, p < .01$), construction ($r = .322, p < .01$), computers ($r = .190, p < .05$), athletics ($r = .357, p < .01$), and sports rehabilitation/training ($r = .268, p < .01$) (also in Table 4).

Cross tabulations and chi-square analyses show that girls and boys reported high levels of confidence with tasks relating to different careers. Boys had higher levels of confidence than girls with mechanics $\chi^2(5, N=110) = 13, p = .02$, factory work $\chi^2(4, N=110) = 12, p = .02$, and construction $\chi^2(4, N=110) = 10.22, p = .04$. Girls reported higher levels of confidence with tasks relating to advertising $\chi^2(4, N=110) = 20.5, p = .00$, administrative assistant $\chi^2(4, N=110) = 9.84, p = .04$, entertainment writer $\chi^2(4, N=108) = 10, p = .04$, nursing $\chi^2(4, N=108) = 17.78, p = .00$, psychology $\chi^2(4, N=108) = 19.5, p = .00$, teaching $\chi^2(4, N=109) = 16.11, p = .00$, university professor $\chi^2(4, N=109) = 13.5, p = .01$, event coordinator $\chi^2(4, N=109) = 31.33, p = .00$, chef $\chi^2(4, N=109) = 17.18, p = .00$, sales $\chi^2(4, N=109) = 9.83, p = .04$, costume design $\chi^2(4, N=109) = 24.3, p = .00$, and farming $\chi^2(4, N=110) = 16.85, p = .00$.

Cross tabulations and chi-square analyses showed gender differences in preferences where boys more than girls preferred mechanics $\chi^2(4, N=110) = 14.17, p = .01$, construction $\chi^2(4, N=109) = 11.63, p = .02$, athletics $\chi^2(4, N=109) = 16.78, p = .00$, and sports rehabilitation $\chi^2(4, N=108) = 11.95, p = .02$. Girls more than boys preferred art $\chi^2(5, N=110) = 11.24, p = .05$, customer service $\chi^2(4, N=110) = 11.63, p = .02$, writing $\chi^2(4, N=109) = 21.39, p = .00$, entertainment writing $\chi^2(4, N=108) = 11.5, p =$

.02, nursing $\chi^2(4, N=108) = 16.63, p = .00$, psychology $\chi^2(4, N=108) = 15.31, p = .00$, teaching $\chi^2(4, N=109) = 30.32, p = .00$, university professor $\chi^2(4, N=109) = 11.71, p = .02$, event coordinator $\chi^2(4, N=109) = 49.58, p = .00$, chef $\chi^2(4, N=109) = 19.16, p = .00$, costume design $\chi^2(4, N=109) = 30.98, p = .00$, and home design $\chi^2(4, N=109) = 20.39, p = .00$.

Overall, in contrast to the prediction made in hypothesis 2, the results of the correlations and chi-square analyses show that girls had more of a variety of career related tasks that they believed they would be good at and that they would prefer than boys.

The third hypothesis, that identity achievement in the domains of occupation, philosophical life, friendship, and recreation will be found with participants that ranked the domain as their first priority, was not supported by significant correlation ($p < .05$) between the priority and identity domains (as seen in Table 5). Instead, the achieved identity domains were negatively correlated with the corresponding priority.

Table 5: Selective Domains of Significant Correlations Between Priorities and Identity Domain Raw Scores

	Priority respect	Priority recreation	Priority friends	Priority career goal	Priority life-style	Priority personal values	Priority family
Friendship diffusion	-.227*		.354**				.210*
Friendship moratorium			.207*				
Recreation achievement		-.222*					
Philosophical Life-style diffusion				.223*			
Philosophical life-style achievement		-.205*		-.228*	-.237*		
Philosophical life-style foreclosure						.212*	-.248*
Occupation moratorium				.206*			
Occupation achievement				-.239*			
Occupation foreclosure						.202*	

*p < .05, **p < .01

The fourth hypothesis, that those who show identity achievement or foreclosure in the domain of occupation will have high levels of confidence in reaching their career goal, was partially supported by a significant correlation ($r = .295$, $p < .01$) between the raw subscale scores of achievement and high levels of confidence in reaching their career goal. There was a slight negative correlation between identity foreclosure and levels of confidence in reaching the career goal. Furthermore, there were significant negative correlations between level of self-confidence in reaching the career goal and the

moratorium identity raw subscale score ($r = -.282, p < .01$) and the diffusion identity raw subscale score ($r = -.347, p < .01$) in the occupation identity domain.

The fifth hypothesis, that high levels of confidence will relate to high levels of preference for career related tasks, was supported by significant ($p < .01$) levels of career task confidence and preferences for every career task included in the survey. Refer to Appendix D for mean and standard deviations for career task self-efficacy, and career task preferences.

The tasks included art, mechanics, advertising, music, service, factory work, industrial work, construction, science, genetics, farming, cattle, forestry, administrative assistance, law, computers, writing, entertainment writing, politics, nursing, medicine, cleaning and maintenance, psychology, teaching, university professor, event coordinator, chef, business owner, sales, athletics, sports training and rehabilitation, performing, entertainment, religion, costume design, home design, landscaping, veterinary work, and financial work. Refer to Appendix E for a table containing the correlations between career task preferences and self-efficacy (confidence).

The sixth hypothesis, that the identity domains of achievement and foreclosure in the occupation identity domain will relate to high levels of perceived career knowledge, was supported by a statistically significant correlation ($p < .05$) between the achievement and foreclosure raw subscale score and perceived career knowledge as seen in Table 6.

Table 6: Significant correlations between selective career knowledge items and occupation identity

	Occupation diffusion	Occupation foreclosure	Occupation moratorium	Occupation achievement
Career content daily work			-.260**	.246*
Career content job duties	-.272**		-.241*	.413**
Career procedure getting money		.200*	-.299**	.262**
Career procedure training and schooling				.247*

*p < .05, **p < .01

Discussion

The idea of who one is and of what one is capable is abstract and complex to say the least. Most ponder these topics throughout the life span, and the organization of such topics can be overwhelming and subjective. The development of identity and perceived self-efficacy seem to be inextricably linked; however, the two topics have remained largely separate in the literature that attempts to organize these subjects. While the topics of identity and self-efficacy is vast, Erikson, Marcia, and Bandura have provided frameworks, organization, and initial tools by which one can objectively measure the two concepts.

The results of this study confirm and conflict with previous findings. The results could be a product of a unique sample beginning with the information about reported level of caregiver education and the students' educational aspirations they had for themselves. The participants overwhelmingly reported their parents being college educated and how they themselves wanted to attain a college education even if their

career goal did not require it. One factor that may have influenced these results is that the location of the middle school is in very close proximity to University California, Santa Cruz; however, many of the caregiver careers did not require a college education. As stated previously, the middle school that participated in this study had higher standard academic scores, and lower rates of ethnic and economic diversity in the student population compared to California state averages which was likely reflected in the students' report of parents' high levels of education. Another interpretation could be that our culture values those who are highly educated, therefore the students viewed their parents as the social role models they needed in order to fulfill their own educational aspirations of a college degree. This was particularly clear with a small group of students who stated that they chose their career goal because one of their parents already had the same career which resembles the description of the foreclosure identity status.

While the participants reported little variance related to educational aspirations, there were many differences between girls' and boys' career task self-efficacy and career task preferences. Unlike previous studies (Bandura, 2001, Betz and Hackett, 1981) where boys tended to report high self-efficacy for a variety of careers and girls reported high self-efficacy for more gender stereo-typed careers, almost the complete opposite was found in this study. In this sample, girls had higher levels of perceived self-efficacy and preference for more of a variety of career related tasks than boys. The types of careers that girls reported having more confidence in ranged from farming to teaching but were largely artistic, creative, or socially related professions, while boys reported more confidence with gender stereo-typical professions in the area of technology as well as

professions related to using physical skills such as mechanics and sports. Boys' preferences were also more restricted, showing preferences for the same career tasks as they had reported higher levels of self-confidence, with the additional career related task related to sports. Girls had slightly more variation in that they reported having high self-efficacy for careers that they did not necessarily prefer such as science, farming, cattle, advertising, and sales. It should be noted that 17% boys and 25% girls chose science based profession as their first career choice. These results may be interpreted as girls' perception of the cultural changes in favor of more flexibility of women's roles in society and specifically in the work place while boys' perception of men's professional roles are remaining restricted and gender stereo-typical. These results may also be reflective of the developmental stages that girls and boys are at when in middle school. It may be that boys and girls in this sample are developing their ability to think about their "actual self" versus their "possible selves" and specifically an "ideal self" at different rates (Arnett, 2001). In other words, the girls in this sample may have been more able to respond to the questions about career tasks with more sensitivity to what they think their possible selves could do in the future where the boys were responding to the questions with more of their actual/current self in mind. On the other hand, multiple studies have found that there is a general decline in self-esteem during the adolescent years (Arnett, 2001). Specifically, Hirsch and Dubois (as cited in Arnett, 2001) found that there are different trajectories for self-esteem during the middle school years. It may be that the boys in the current sample are in a place of generally lower levels of self-esteem or self-confidence in relation to career related tasks. Taking into consideration the possibility that the sample in this

study may be unique, it is still compelling that girls appear to be thinking of many possible careers while boys appear to be at risk of not believing that they be good at or like as many career options.

While there were gender differences between career related self-efficacy and preferences, the group finding that the level of preferences for career related tasks was positively correlated to levels of perceived self-efficacy for every career task in the survey describes the seemingly inextricable link between what one likes with what one thinks they are good at. This pattern of the link between preferences and self-efficacy appears to describe the reinforcing cycle where one's experiences and thoughts about one's abilities feed into each other promoting further thoughts and actions that reaffirm the previous beliefs about ones self. Furthermore, the preference may be a way of sorting out potential cognitive dissonance around success or failure making it easier to reject activities that one is not good at. Those who reject what they think they are not good at and prefer what they think they are good at may describe those with an overall lower level of perceived self-efficacy because they are not overcoming challenges to build new skills. While some people may be inherently good at certain tasks, most people need to practice tasks in order to develop skills therefore those who prefer what they think they are good at may be unnecessarily restricting their options. Alternatively, the pattern of rejection could be a way of narrowing the selection process with the understanding that the likelihood of success increases if one is good at the task, because success is generally preferred, higher self-efficacy builds a preference for the task.

Identity and self-efficacy appear to influence each other in the occupation domain. The hypothesis that the identity statuses of achievement and foreclosure would correspond to higher levels of perceived self-efficacy in reaching one's career goal was supported. It was also found that there was a negative relationship between levels of perceived self-efficacy and the identity statuses of moratorium and diffusion. These results appear to describe the possible relationship between the commitment to a career goal and the belief that one can reach that goal. The results may describe the process of exploration as temporarily reducing the level of self-efficacy because the individual is building experience and most likely facing challenges. Furthermore, the identity statuses of achievement in the occupation domain corresponded to career knowledge about daily work, job duties, attaining the money to pay for schooling or training, and the specific training and schooling related to their career goal. The identity status of moratorium was negatively correlated to career knowledge about daily work, job duties and pay rates. The identity status of foreclosure was correlated with knowledge about attaining money for schooling or training needed for the career goal and the identity status of diffusion was negatively correlated to job duties of their career goal. These results appear to show the pattern of commitment to a career goal and the perception of what one thinks they know about their career goal. If individuals have explored and committed to a career goal then they think they know about the details of the career and what steps are necessary to reach the career goal. The isolated relationship between those in the foreclosed identity status and the procedure of paying for the training and/or schooling needed to reach the goal may be a reflection of having committed to a career goal

because one knows that they have the means to reach that specific goal and may not have the means to reach another goal if they chose it.

The hypothesis that the higher an identity domain was ranked as a priority the more developed the identity status was not supported in this study. In fact the opposite was found. Specifically, it was found that there was a negative relationship between identity achievement and the corresponding priority. In other words, it appears that when an identity domain was in an achieved identity status, it was ranked as a lower priority, furthermore, when an identity domain was in the moratorium, foreclosed, or diffused status the corresponding subject was ranked as a higher priority. These results could be interpreted as part of the process in which identity develops where an identity domain is a higher priority until it is achieved or resolved which prompts the shift to a lower priority so one can focus on another domain of identity that needs development. This pattern could be a process of search and exploration in this age group and likely the result of the need for individuals to put their focus and prioritize domains of life that are still being explored as apposed to already achieved. This explanation is further supported by the positive correlations between the identity status of moratorium and diffusion and their corresponding priorities as seen for the occupation and friendship domains.

The pattern of priorities and identity statuses found in this study may also describe part of what Erikson (1959) described as a process by which “identity formation neither begins nor ends with adolescence: it is a lifelong development.” (p. 122). Erikson’s theory that identity development is a lifelong process was further supported by longitudinal and cross sectional studies that found a range of identity statuses and status

trajectories that appeared to be independent of age but more related to situations that may or may not challenge the stability of one's identity (Bennion and Adams, 1986). In other words, a domain of identity may be a higher or lower priority and thus at various levels of development depending on the situation that the individual is in and the overall developmental level they are at. For example, an individual graduating from college, getting married or starting a family would elicit some exploration and self-evaluation of who one is and what his or her role in society may be despite his or her chronological age.

In terms of future directions, it would be interesting to investigate the longitudinal relationship between priorities and identity trajectories. Furthermore, as stated before in this study there were not gender differences between the identity statuses or priorities; however, there were gender differences between career tasks and career preferences. The results can be interpreted as a change in the way boys and girls view career tasks and potential career goals. While girls appear to be exploring a variety of careers, boys appear to be more limited in what they think they are good at and what they would prefer to do as a career. Because of the length of the survey, the identity domain of sex roles was taken out. It would greatly benefit the further understanding of the findings between girls and boys and their career preferences to gain insight into boys and girls development of the perception of limitations related to gender as well as how their perceptions may change over time.

Another factor to consider when examining the results of this study is that the sample was in need of more variance in relation to ethnicity and caregiver education.

Furthermore, it would have been helpful to have actual parent self reported information to compare with student reports which might show more variance on parent education than what was reported by the participants themselves.

Identity and self-efficacy development are similar to all processes of growth and change. The bodies' muscles must be torn before they are rebuilt to be stronger than before just as Erikson (1968) described experiencing a state of crisis as a catalyst for growth and change and Bandura (1994) described the need for inner strength to persevere in the face of challenges. The growth of one's identity and perception of self-efficacy must also go through a process that requires internal effort and external conditions that lay the foundation for new skills and strength in the face of challenges.

This study has explored how young adolescents describe their perception of who they are and what they may like or be good at in the future. Future experiments in this area of study could investigate how girls and boys would rate the opposite gender's confidence and preference for career related tasks to further understand the perception of gender limitations or lack of limitations in relation to careers. Additionally, this area of study could benefit from experiments which assess both global self-efficacy and global identity statuses in addition to domains of self-efficacy, identity, and priorities at different points over the life span. Doing such experiments would further the understanding of how patterns of self-efficacy and identity development may change throughout the life span and be different for various demographic groups. As further understanding about the variation of developmental patterns of identity and self-efficacy may be revealed so

would the potential conditions and strategies that would support healthy development of high self-efficacy and identity achievement.

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APPENDIX A: SAN JOSE STATE UNIVERSITY HUMAN SUBJECTS REVIEW**BOARD LETTER OF CONSENT**



San José State
UNIVERSITY

Office of the Provost
Associate Vice President
Graduate Studies & Research

One Washington Square
San José, CA 95192-0025
Voice: 408-924-2427
Fax: 408-924-2477

E-mail: gradstudies@sjsu.edu
<http://www.sjsu.edu>

To: Dawn Mikolyski

From: Pamela Stacks, Ph.D.
Associate Vice President
Graduate Studies and Research

Pamela Stacks

Date: September 20, 2007

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"Self-efficacy, Identity, Priorities, Career Knowledge and Interests in Adolescents"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Pamela Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subject's portion of your project is in effect for one year, and data collection beyond September 20, 2008 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.

cc. Mildred Alvarez, 0120

The California State University:
Chancellor's Office
Bakersfield, Channel Islands, Chico,
Dominguez Hills, East Bay, Fresno,
Fullerton, Humboldt, Long Beach,
Los Angeles, Maritime Academy,
Monterey Bay, Northridge, Pomona,
Sacramento, San Bernardino, San Diego,
San Francisco, San José, San Luis Obispo,
San Marcos, Sonoma, Stanislaus

APPENDIX B: INFORMED CONSENT FORM

Agreement to Participate in Research

Responsible Investigator: Dawn Mikolyski

Title of Protocol: SELF-EFFICACY, IDENTITY, PRIORITIES, CAREER KNOWLEDGE AND INTERESTS IN ADOLESCENTS

1. Your child or ward has been asked to participate in a research study investigating early development of career interests.
2. Your child or ward will be asked to answer questions on a survey related to occupation, recreation, friendship, and philosophical life-style identity development, as well as self-efficacy and preferences in relation to career related tasks. The survey takes approximately 30 minutes and will be given during a class session.
3. There are no foreseeable risks related to this survey. The questions that are being asked have been used to gain insight into the way people think about future careers and identity.
4. Previous participants in similar studies have reported that the survey was helpful in thinking about the future and career possibilities. A discussion about career interests and educational paths will provide information about exploring and meeting career goals and will be conducted upon the completion of the survey.
5. If a student does not participate in the survey and discussion they may work on class assignments in the classroom.
6. Although the results of this study may be published, no information that could identify your child or ward, your family, or you will be included. No individual results will be provided and only group results will be used.
7. If 50% or more of the students in one class participate in this study then \$50.00 will be provided to the school for a party that would be scheduled at an appropriate time as determined by the school staff.
8. Questions about this research may be addressed to Dawn Mikolyski, 831-345-1336. Complaints about the research may be presented to Dr. Sheila Bienenfeld, Psychology Department Chair, (408) 924-5600. Questions about research subjects' rights, or research-related injury may be presented to Pamela Stacks, Ph.D., Associate Vice President, Graduate Studies and Research, at (408)924-2480.
9. No service of any kind, to which you and/or your child or ward are otherwise entitled, will be lost or jeopardized if you choose to "not participate" in the study.
10. Your consent for your child or ward to participate is being given voluntarily. You may refuse to allow his or her participation in the entire study or in any part of the study. If you allow his or her participation, you are free to withdraw your child or ward from the study at any time, without any negative effect on your relations with San Jose State University or with any other participating institutions or agencies.
11. At the time that you sign this consent form, you will receive a copy of it for your records, signed and dated by the investigator.

The signature of a parent or legal guardian on this document indicates:

- a) approval for the child or ward to participate in the study,
- b) that the child is freely willing to participate, and
- c) that the child is permitted to decline to participate, in all or part of the study, at any point.

The signature of a researcher on this document indicates agreement to include the above named subject in the research and attestation that the subject's parent or guardian has been fully informed of the subject's rights.

Name of Child or Ward

Parent or Guardian Signature

Date

Relationship to Child or Ward

Full Mailing Address

Investigator's Signature

Date

APPENDIX C: COMPLETE SURVEY

Career Interests and Identity Survey

Gender (circle one): MALE FEMALE

Age: _____

Ethnicity: _____

First career choice: _____

Why: _____

How confident are you that you will reach this career goal?

1	2	3	4	5
Not confident at all.	Not very confident	Neither confident or unconfident	Somewhat confident	Very confident

How much schooling do you think you will need for your career goal?

High School 1	Some College 2	Bachelor Degree 3	Masters or PhD 4
---------------	----------------	-------------------	------------------

Second career choice: _____

Why: _____

How confident are you that you will reach this career goal?

1	2	3	4	5
Not confident at all.	Not very confident	Neither confident or unconfident	Somewhat confident	Very confident

How much schooling do you think you will need for your career goal?

High School 1	Some College 2	Bachelor Degree 3	Masters or PhD 4
---------------	----------------	-------------------	------------------

Third career choice: _____

Why: _____

How confident are you that you will reach this career goal?

1	2	3	4	5
Not confident at all.	Not very confident	Neither confident or unconfident	Somewhat confident	Very confident

How much schooling do you think you will need for your career goal?

High School 1	Some College 2	Bachelor Degree 3	Masters or PhD 4
---------------	----------------	-------------------	------------------

Caregiver (circle one): Mother/Father/Other Occupation: _____

Highest Education (circle number in the appropriate box)

High School 1	Some College 2	Bachelor Degree 3	Masters or PhD 4
---------------	----------------	-------------------	------------------

Caregiver (circle one): Mother/Father/Other Occupation: _____

Highest Education (circle number in the appropriate box)

High School 1	Some College 2	Bachelor Degree 3	Masters or PhD 4
---------------	----------------	-------------------	------------------

Career Information

DIRECTIONS: Please show how much you agree or disagree with the following statements by writing the number that corresponds to one of the four options:

Strongly Disagree 1	Moderately Disagree 2	Disagree 3	Agree 4	Moderately Agree 5	Strongly Agree 6
---------------------------	-----------------------------	---------------	------------	--------------------------	---------------------

1. I have a good idea of what the day to day work will be like in my _____
chosen career.
2. I know about how many hours a week I would work in order to _____
be successful in my chosen career.
3. I understand the job duties involved with my chosen career. _____
4. I have an idea of how much money I would make per year in my _____
chosen career.
5. I know how much training and/or schooling is needed for my _____
chosen career.
6. I know how much money the training and/or schooling will cost _____
to reach my chosen career.
7. I have a good idea about how to get the money to pay for my
schooling and/or training needed to reach my chosen career goal. _____
8. I know about how many years of school after high school it will
take to reach my chosen career goal. _____

Information about Priorities

Directions: Indicate how important the content in each item is to you by ranking each item from 1 to 12. Use the number 1 to show the item most important to you through the number 12 as the item that is the least important to you.

Note: The term "life style" refers to a way of life that reflects the attitudes and values of a person or group.

1. How important is making and having money? _____
2. How important is prestige (level of respect)? _____
3. How important are recreational activities? _____
4. How important are your friends? _____
5. How important is keeping your life-style? _____
6. How important is reaching your career goal? _____
7. How important is having fun in the moment? _____
8. How important is doing well in school? _____
9. How important is being publicly recognized/ being famous? _____
10. How important is your family? _____
11. How important is upholding your personal values? _____
12. How important is planning and preparing for the future? _____

Task Self-efficacy and Preferences

Directions: Indicate the extent to which you would be CONFIDENT of your ability to successfully complete the following tasks on a regular basis if you received some training for the tasks, **AND** indicate how much you would LIKE to do the activity.

1. Paint or sketch portraits, landscapes, or other objects in oils, watercolors, charcoals, or create a statue or other works of art.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

2. Work on the mechanics of automobiles, planes or boats.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

3. Create advertisements for a company to put in magazines or for television commercials.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

4. Spend long hours writing music and developing and perfecting your musical talent and knowledge of harmony, melody, and rhythm.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

5. Serve food at a restaurant, give tours of interesting sites, or make sure people have what they need and ask for at a hotel.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

6. Watch a panel board and adjust the throttle and valves to regulate turbines, which regulate electricity, water, or the assembly line of a factory.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

7. Direct operations of a major generating plant of an electrical power system or water system.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

8. Work on the plumbing, electrical or coordination of the engineering and construction of a building.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

9. Conduct experiments about bacteria in the water, food supply, or general environment or to develop new information about diseases.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

10. Conduct experiments by breeding animals or plants to study characteristics passed from parents to offspring.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

11. Plant, cultivate, and harvest many farm crops.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

12. Milk, breed, and care for dairy cows.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

13. Plan projects for cutting timber and replanting forests, or preserving various environments.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

14. Take dictation in shorthand and type letters or other documents from your notes, prepare correspondence, keep records and prepare reports.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

15. Interpret and make decisions about the laws and consequences for those who break the law.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

16. Write computer programs to analyze problems or to create automated operations in a business.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

17. Write about current or historical events for newspapers, magazines or books.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

18. Write dialogue for plays, movies, or television programs.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

19. Make decisions and speak in front of an audience about public policy and how tax money should be used.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

20. Provide general nursing care to patients in a hospital or help elderly and/or persons with a disability feed or dress themselves in a nursing home.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

21. Diagnose, perform surgery and decide treatments for health problems and/or psychological problems.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

22. Clean or do the maintenance for houses, apartment buildings, hotels or businesses.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

23. Help a person with special needs or prison parolee find jobs or psychological help.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

24. Teach at an elementary, middle or high school.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

25. Teach and do research at a university.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

26. Coordinate events such as banquets or weddings.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

27. Prepare and coordinate the food for events and or in a restaurant.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

28. Own and manage your own business.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

29. Sell products, arrange and conduct demonstrations of products, go door to door trying to sell products, or call people on the telephone to sell them products.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

30. Be a professional athlete.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

31. Coach, train or rehabilitate people or athletes that have been injured or need improvement.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

32. Perform in front of a live audience or in front of a camera.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

33. Direct a movie, play or TV show or work on a movie or television show by operating a camera, creating sets, directing lighting or sound.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
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34. Talk to people about religion and give people counsel based on religious beliefs.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

35. Design the costumes for a play, movie, or clothing to be sold in stores.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
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36. Design the floor plan or decorations for houses, businesses or hotels.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

37. Design and take care of gardens.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
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38. Study, rescue, diagnose and take care of animals.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
----------------------------	-------------------------	---------------------------------------	-------------------------	---------------------

1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
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39. Make decisions about what money investments people should make or what loans people or businesses would qualify for.

1 Not confident at all.	2 Not very confident	3 Neither confident or unconfident	4 Somewhat confident	5 Very confident
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1 Strongly dislike	2 Dislike somewhat	3 Neither like or dislike	4 Like somewhat	5 Like very much
-----------------------	-----------------------	------------------------------	--------------------	---------------------

Identity scale EOMEIS-2**Directions:**

Read each item and indicate to what degree it reflects your own thoughts and feelings.
Indicate your reaction to the statement as a whole.

Strongly Disagree 1	Moderately Disagree 2	Disagree 3	Agree 4	Moderately Agree 5	Strongly Agree 6
---------------------------	-----------------------------	---------------	------------	--------------------------	------------------------

Note: The term "life style" refers to a way of life that reflects the attitudes and values of a person or group.

1. I haven't chosen the career I really want to get into, and I will just work at what is available until something better comes along. _____
2. There's no specific "life style" which appeals to me more than another. _____
3. There are a lot of different kinds of people. I'm still exploring the many possibilities to find the right kind of friends for me. _____
4. I sometimes join in recreational activities when asked, but I rarely try anything on my own. _____
5. I'm still trying to decide how capable I am as a person and what jobs will be right for me. _____
6. I'm looking for an acceptable perspective for my own "life style" view, but haven't really found it yet. _____
7. There are many reasons for friendship, but I choose my close friends on the basis of certain values and similarities that I've personally decided on. _____
8. While I don't have one recreational activity I'm really committed to, I'm experiencing numerous activities to identify one I can truly enjoy. _____
9. I might have thought about a lot of different jobs, but there's never really been any question about the job I would do since my parents said what they wanted for me. _____
10. After considerable thought I've developed my own individual viewpoint of what is for me an ideal "life style" and don't believe anyone will be likely to change my perspective. _____
11. My parents know what's best for me in terms of how to choose my friends. _____

Identity scale EOMEIS-2**Directions:**

Read each item and indicate to what degree it reflects your own thoughts and feelings.
Indicate your reaction to the statement as a whole.

Strongly Disagree 1	Moderately Disagree 2	Disagree 3	Agree 4	Moderately Agree 5	Strongly Agree 6
---------------------------	-----------------------------	---------------	------------	--------------------------	------------------------

Note: The term "life style" refers to a way of life that reflects the attitudes and values of a person or group.

12. I've chosen one or more recreational activities to engage in regularly from lots of things and I'm satisfied with those choices.

13. I'm not really interested in finding the right job, any job will do. I think I will just flow with what is available.

14. My own views on a desirable life style have come right from my parents and family. I haven't seen any need to look further.

15. I don't have any real close friends, and I don't think I'm looking for one right now.

16. Sometimes I join in recreational activities, but I really don't see a need to look for a particular activity to do regularly.

17. It took me a while to figure it out, but now I really know what I want for a career.

18. In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self-exploration.

19. I only pick friends my parents would approve of.

20. I've always liked doing the same recreational activities my parents do and haven't ever seriously considered anything else.

21. My parents decided a long time ago what I should go into for employment and I'm following through with their plans.

22. My parents' views on life are good enough for me, I don't need anything else.

Identity scale EOMEIS-2**Directions:**

Read each item and indicate to what degree it reflects your own thoughts and feelings. Indicate your reaction to the statement as a whole.

Strongly Disagree 1	Moderately Disagree 2	Disagree 3	Agree 4	Moderately Agree 5	Strongly Agree 6
---------------------------	-----------------------------	---------------	------------	--------------------------	------------------------

Note: The term "life style" refers to a way of life that reflects the attitudes and values of a person or group.

23. I've had many different friendships and now I have a clear idea of what I look for in a friend. _____
24. After trying a lot of different recreational activities I've found one or more I really enjoy doing by myself or with friends. _____
25. It took me a long time to decide but now I know for sure what direction to move in for a career. _____
26. I guess I just kind of enjoy life in general, and I don't see myself living by any particular viewpoint to life. _____
27. I don't have any close friends. I just like to hang around with the crowd. _____
28. I've been experiencing a variety of recreational activities in hopes of finding one or more I can really enjoy for some time to come. _____
29. I just can't decide what to do for an occupation. There are so many possibilities. _____
30. After a lot of self-examination I have established a very definite view on what my own life style will be. _____
31. I really don't know what kind of friend is best for me. I'm trying to figure out exactly what friendship means to me. _____
32. All of my recreational preferences I got from my parents and I haven't really tried anything else. _____

**APPENDIX D: DESCRIPTIVE STATISTICS FOR CAREER TASK
PREFERENCES AND CAREER TASK SELF-EFFICACY**

Descriptive Statistics for Career Task Preferences

<u>Task Preference</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>
art	110	3.7636	2.1500
mechanics	110	2.5727	1.3095
advertising	110	3.2182	1.1119
music	110	3.2545	1.3023
customer service	110	2.8000	1.1871
factory	110	1.9273	1.0110
industrial plant	110	1.9818	0.9185
construction	109	1.8807	1.0067
science	110	2.5364	1.2970
genetics	110	2.7182	1.2498
farming	110	2.2000	1.1236
cattle	110	2.0909	1.0364
forestry	110	2.6455	1.2821
administrative assistant	110	2.2545	1.1041
law	109	2.9633	1.3118
computers	109	2.6330	1.1439
writer	109	2.8349	1.3978
entertainment writer	108	3.4074	1.2307
politics	108	2.2407	1.1830
nursing	108	2.4259	1.2167
doctor	108	2.3333	1.3740
cleaning and maintenance	108	1.6852	0.8717
psychology	108	2.2963	1.0613
teaching	109	3.1835	1.2850
university	109	2.6606	1.2562
event coordinator	109	2.8991	1.3260
chef	109	3.1651	1.2135
business owner	109	4.0183	0.9621
sales	109	1.8165	1.1399
athletics	109	3.6514	1.4361
sports rehab	108	3.1296	1.3191
performing	109	3.9358	5.1031
entertainment	109	3.4679	1.2062
religion	109	2.0092	1.0319
costume design	109	3.1835	1.4667
home design	109	3.1193	1.2962
landscaping	109	2.6789	1.2684
veterinarian	109	3.4404	1.2797
financial	109	2.3119	1.2072
Valid N (listwise)	106		

Note: items based on a 6 point Likert Scale.

Descriptive Statistics for Career Task Self-efficacy

<u>Task self-efficacy</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>
art	110	3.5091	3.1118
mechanics	110	2.6636	1.4732
advertising	110	3.3091	1.0899
music	110	3.0545	1.2767
customer service	110	3.3727	1.2029
factory	110	2.1364	1.0877
industrial plant	110	2.1091	1.0950
construction	110	2.2000	1.2176
science	110	2.6182	1.2190
genetics	110	2.8273	1.2478
farming	110	2.8545	1.2767
cattle	110	2.7182	1.2498
forestry	110	2.8636	1.2227
administrative assistant	110	2.6909	1.3115
law	109	3.2018	1.2002
computers	109	2.6147	1.1778
writer	109	3.0734	1.3032
entertainment writer	108	3.1759	1.2885
politics	108	2.4630	1.2636
nursing	108	2.8056	1.3287
doctor	108	2.3889	1.4065
cleaning and maintenance	108	2.7593	1.3594
psychology	108	2.6944	1.2339
teaching	109	3.2661	1.3308
university	109	2.7431	1.2126
event coordinator	109	3.0642	1.3001
chef	109	3.3028	1.1903
business owner	109	3.7339	1.0941
sales	109	2.6514	1.2574
athletics	109	3.1743	1.3934
sports rehab	108	3.0000	1.2825
performing	109	3.3119	1.3102
entertainment	109	3.2294	1.2295
religion	109	2.2569	1.1895
costume design	109	3.0367	1.4072
home design	109	3.0459	1.2575
landscaping	109	2.9908	1.2209
veterinarian	109	3.2844	1.2479
financial	109	2.5688	1.1576
Valid N (listwise)	107		

Note: items based on a 6 point Likert Scale.

**APPENDIX E: CORRELATIONS BETWEEN CAREER TASK SELF-
EFFICACY AND CAREER TASK PREFERENCES**

Correlations between Career Task Self-efficacy and Preferences

<u>Career Task</u>	<u>r</u>
Art	.915**
Mechanics	.681**
Advertising	.655**
Music	.759**
Service	.547**
Factory Work	.493**
Industrial Work	.622**
Construction	.716**
Science	.757**
Genetics	.763**
Farming	.500**
Cattle	.438**
Forestry	.671**
Administrative Assistant	.701**
Law	.581**
Computers	.519**
Writing	.657**
Entertainment Writing	.738**
Politics	.706**
Nursing	.693**
Doctor	.812**
Cleaning and Maintenance	.259**
Psychology	.719**
Teaching	.751**
University Professor	.781**
Event Coordinator	.777**
Chef	.754**
Business Owner	.612**
Sales	.569**
Athletics	.762**
Sport Rehabilitation/Coaching	.768**
Performing	.322**
Entertainment	.739**
Religion	.579**
Costume Design	.858**
Home Design	.781**
Landscaping	.644**
Veterinarian	.738**
Finances	.780**

****p<.01**